to use these terms interchangeably as suggested by the Examiner. For example, MacPherson teaches at col. 2, lines 5-7 that "the fuses in the device which define how the circuit is configured are accessed through the I/O pins on the device package."

Contrary to the Examiner's interpretation of the term "package," the Applicants distinguish between the device and the package. For example, the Applicants provide a definition in the specification at page 6, lines 2-10: "the term package as used herein is intended to include any integrated circuit carrier...In addition to the external connections, the package provides connections between chip 205 and package 207."

The meaning of the term "package" and its distinction from the device may also be obtained from a publicly available glossary. "Dictionaries, encyclopedias and treatises, publicly available at the time the patent is issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art." *Texas Digital Sys., Inc. v. Telegenix Inc.*, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002). In general, a package is "the protective container of an electronic component or chip. It includes the external terminals that provide electrical access to the components inside." LUCENT TECHNOLOGIES, GLOSSARY, *available at* http://www.lucent.com/search/glossary/glossary.html. Based on the aforementioned definitions, a package is distinct from a semiconductor device inside the package.

Claim 2 specifically recites a package including at least one pair of programmable elements. Because a package is distinct from a device, fuses in the device, taught by MacPherson, fail to teach the claimed package having a pair of programmable elements. Accordingly, Applicants respectfully submit that claim 2 and all claims dependent thereon are patentably distinguishable over MacPherson.

Similarly, claim 17 recites a package including one or more one-time programmable elements. Since MacPherson fails to teach a package having one-time programmable elements, as discussed above, Applicants submit that claim 17 and all claims dependent thereon are distinguishable over MacPherson.

Claims 2, 7-9, 11, 12, 15-18, 20-23, and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,536,968 to Crafts et al. Craft fails to construe the whole semiconductor device as a "package" as suggested in paragraph 10 of the Office Action. Instead, Crafts teaches a programmable read only memory (PROM) including an array of polysilicon fusc elements formed within a semiconductor substrate. See Abstract. Crafts fails to teach one-time programmable elements being included as part of a package for mounting an integrated circuit die as required by independent claims 2, 12, 17, and 21. Craft does not mention anything about packaging. Even if memory devices are conventionally placed in dies in semiconductor packages, as the Examiner suggests, a PROM device and a fuse array structure for implementation within an integrated circuit, as taught by Crafts, fails to teach fuses included as part of the package. Accordingly, Applicants respectfully submit that the independent claims distinguish over Crafts and respectfully request that the rejection of those claims and all claims dependent thereon be reconsidered and withdrawn.

Claim 12 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,266,829 to Hamdy. Hamdy teaches that antifuses may be formed as a diffusion region in a semiconductor substrate. See Abstract. Hamdy fails to teach that the whole semiconductor device is a "package" as suggested in paragraph 10 of the Office Action. At col. 3, lines 48-50, Hamdy teaches that "[t]he anti-fuses may be blown either before or after packaging of the integrated circuit die." The semiconductor integrated circuit of Hamdy is distinct from the package. Therefore, the anti-fuses in a semiconductor substrate fails to teach the claimed package including programmable elements.

Claim 12 recites that another programmable element is serially coupled between the second end of the programmable element and an external package connection. That structure is shown, for example, in Fig. 8 where programmable elements 624-627 are coupled between the second end of programmable element 601-607 and external package connectors. The structure illustrated in Fig. 8 provides, as described on page 10, lines 3-7 of the application, that the fuses 624-627 can be used in testing environments, where, for example, an internal signal must be accessible during test, but is then decoupled from the package pin by blowing a fuse prior to product shipment. That claimed structure and the advantage referenced above is not taught or suggested in any of the references of record alone or in combination.

Hamdy is directed towards electrically programmable interconnect devices for use in integrated circuits. Hamdy fails to teach anything related to one time programmable elements on packages. Further, the Office Action points to elements 168d in Fig. 5a of Hamdy and asserts that element 168h is coupled between a second end of antifuse 168d and output 178. According to the Office Action, the first end of antifuse 168d is coupled to bit line 00 (the power supply). The Applicants note that the second end of antifuse 168d is coupled either to ground through transistor 166d or is floating if the antifuse is not programmed. Thus, the element 168h cannot be coupled between the second end as required by the claim and an external package connection. In view of the above remarks, Applicants submit that claim 12 is in condition for allowance.

Claim 21 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,748,031 to Best. Best teaches fuses in an integrated circuit and fails to teach, as required by claim 21, a package containing one or more one-time programmable elements and an integrated circuit die mounted in the package. Accordingly, Applicants submit that claim 21 distinguishes over Best.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over MacPherson. Applicants submit that claim 6 distinguishes over MacPherson at least for the reasons given for claim 2.

Barth and MacPherson, alone or in combination also fail to teach, as recited in claim 24, that the one or more one-time programmable elements specify a control value relating to clock frequency at which the processor operates. Thus, Applicants respectfully request that the rejection of claim 24 be reconsidered and withdrawn for that additional reason.

Claims 19 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Macpherson further in view of Barth (U.S. Pat. No. 5,134,616). As Applicants explained, MacPherson fails to teach a package including one or more one-time programmable elements as recited in claim 17, on which claims 19 and 24 depend. That teaching is not supplied in Barth. Accordingly, Applicants respectfully request that the rejection of claim 19 and 24 be reconsidered and withdrawn. Further, Barth fails to teach, as recited in claim 19 that the one or more one-time programmable elements specify an operating voltage of at least a portion of a

processor. Thus, Applicants respectfully request that the rejection of claim 19 be reconsidered and withdrawn for that additional reason.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Macpherson further in view of Barth (U.S. Pat. No. 5,134,616). As Applicants explained, MacPherson fails to teach a package including one or more one-time programmable elements as recited in claim 25. That teaching is not supplied in Barth. Accordingly, Applicants respectfully request that the rejection of claim 25 be reconsidered and withdrawn.

The Office action rejects claim 25 relying on MacPherson and Barth, col. 12, lines 10-34, to teach a semiconductor memory device wherein fuses are programmed to perform an error correction. However, that fails to teach that the claimed programmable element specifies use of ECC for the cache memory on the integrated circuit as claimed in claim 25. Instead Barth teaches using fuses to achieve redundancy by efficiently switching in redundant bit lines. See Summary of the Invention. Barth fails to teach or suggest specifying use of ECC using a programmable element as claimed in claim 25. Accordingly, Applicants respectfully submit that claim 25 distinguishes over the references of record.

In view of the above amendments and remarks, Applicants believe that all claims are now in condition for allowance. However, if the Examiner believes there are any issues which could be resolved via a telephone conference, the Examiner is respectfully requested to contact the undersigned at the number indicated below.

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on the date shown below.

Mark Zagorin — 1/30/2003 Date

Respectfully submitted,

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